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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/894,524	06/27/2001	Martin Boliek	074451.P134	5999

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EXAMINER

LIN, KELVIN Y

ART UNIT	PAPER NUMBER
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2142

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/18/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/894,524

Applicant(s)

BOLIEK ET AL.

Examiner

Kelvin Lin

Art Unit

2142

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Detailed Action

Response to Arguments

1. Applicant's arguments, see pages 11-13, filed Oct. 30, 2006 with respect to the 35 USC 102(e) rejection(s) of claim(s) 1 under Deshpande et al., (US PG Pub No. 20020087728) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made to claims 1, 3-28 under Deshpande et al., (US PG Pub No. 20020087728) in view of Larsson et al., (US PG Pub No. 20030110299).

Response to Amended Claims

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-28 are rejected under 35 USC 103(a) as being unpatentable over Deshpande et al., (US PG Pub No. 20020087728) in view of Larsson et al., (US PG Pub No. 20030110299).

3. Regarding claim 1, Deshpande teaches a client comprising:

- a memory having an application and a data structure stored therein, wherein the data structure identifies positions of the compressed codestream on a server and identifies data of the compressed codestream already buffered at the client, if any (Deshpande, fig. 1, [0007], illustrated the data structure of application JPEG2000, [0008], based on the length of code block contribution information in each header, it can identify the location/segments of the codestream in the memory, in [0042], since JPEG2000 codestream is well structured, from the location of the corresponding portions of the codestream, it is possible to retrieve some portion of the codestream in the memory).
- a processor coupled to the memory to execute the application to generate a request for portions of the compressed codestream based on indications of which portions of the codestream are already stored in the memory as indicated by the data structure (Deshpande, [0030], the application of file indexing allow client to make intelligent HTTP requests to obtain required portions of an image file bit stream of the codestream from the server), wherein size of the requested portions is determined based on at least two of resolution, layer, component, and precinct of an image specified by a user of the client (Deshpande, [0008], [0009]) and wherein the size of the requested option is derived from the data structure of the client corresponding to the user specified at least two of resolution, layer, component, and precinct of the image (Deshpande, [0009], [0028],

indicates there are a range of resolution for the image,);

Deshpande has not specifically disclosed the client processor processing codestream. However, Larsson teaches that

wherein the processor prior to decoding, integrates previously obtained portions of the compressed codestream with portions of the compressed codestream received as a result of the request to create a new codestream by putting packets in the order the packets appeared in the compressed codestream (Larsson, [0050]-[0059], fig. 1-4, in which the client requests for a stored image, and in further the client decides that a part of the image is more important, then the client request for the desired part, with the chronological number, the number of bytes received, and the client creates a mask, i.e. creates a new codestream integrates with the previous stored image information in the transform domain that selects the coefficient needed for the server to decide what CU's are needed for the server) and by updating codestream markers to reflect that the previously obtained portions of the compressed condestream and the portions of the compressed codestream received as a result of the request are part of the new codestream (Larsson, [0098]-[0105], fig. 4-7, in which the client-server exchange can refer to the original or previous transcoded image according the decision by the client the interaction between the client and server and the operation at each sides is changed so that use to use TAGS or re-sync marks in the bit stream, see [0103], i.e. the update of codestream markers in the bit stream is reflected

that the previous transcoded image), wherein the codestream markers include a TLM marker and PLM marker that provide a byte map to each of the packets, each of the packets being distinguishable by tile, component, resolution, and layer (Larsson, [0108], fig.8, in which the image, bit map, is divided into blocks that are independently decodable, i.e. each of the packet being distinguishable by the element of JPEG2000).

Because knowing the structure of Larsson can improve the processing of server side control, it would have been obvious to use Larsson's server-side control to improve the scalability for Deshpande's structure. Therefore, the claimed invention would have been obvious to one of the ordinary skill in the art at the time of the invention.

4. Regarding claim 3, Larsson further discloses a system comprising:

- A server to store a compressed codestream corresponding to image data (Larsson, [0063], 1.1-4) ; and
- a client coupled to the server via a network environment, wherein the client includes a memory having an application and a data structure stored therein, wherein the data structure identifies positions of the compressed codestream on the server and identifies data of the compressed codestream already buffered at the client, if any, and further wherein the client request bytes of the compressed codestream from the server that are not already stored in the memory and generates decoded image data requested (Larsson, [0052], 1.1-5), in which the client sends a request to

the server for the desired part which is not in the client) by a user from the bytes of the compressed codestream requested from the server and any portion of the compressed codestream previously stored in the memory necessary to create the image data (Larsson, [0049]-[0054]), necessary to create the image data are part of the new codestream, the client to generate image data by decoding the new codestream, wherein size of the requested bytes is determined based on at least two of resolution, quality, size, and region of an image specified by a user of the client (Deshpande, [0008], [0009]) and wherein the requested portion is derived from the data structure of the client corresponding to the user specified at least two of resolution, layer, component, and precinct of the image, wherein the codestream markers include a TLM marker and PLM marker that provide a byte map to each of the packets, each of the packets being distinguishable by tile, component, resolution, and layer (Larsson, [0108], fig.8, in which the image, bit map, is divided into blocks that are independently decodable, i.e. each of the packet being distinguishable by the element of JPEG2000).

5. Regarding claims 4, Deshpande teaches the system defined in claim 3 wherein the portion of the compressed codestream are selected from a group of packets, tile part, and coded data segments from a codebook (Deshpande, [0006], [0030]).

6. Regarding claim 5, Larsson further discloses the system defined in claim 3 wherein, when executing the application, the client determines image characteristics that a user requests (Larsson, Abstract), selects data of a compressed codestream that corresponds to the image characteristics, determines data of a compressed codestream that corresponds to the image characteristics that is not already buffered at the client, issues requests to the server to obtain the data of a compressed codestream that corresponds to the image characteristics that is not already buffered at the client, integrates data received from the server with any previously buffered data of the compressed codestream that corresponds to the image characteristics, decodes the data of the compressed codestream that corresponds to the image characteristics, and displays an image corresponding to the decoded compressed codestream. (Larsson, [0002], [0008], [0021], [0062]).
7. Regarding claim 6, Larsson further discloses the system defined in claim 3 wherein the server serves byte requests (Larsson, [0032], 1.1-3, [0060]).
8. Regarding claim 7, Larsson further discloses the system defined in claim 3 wherein the client further comprises a software decoder, and the client creates the compressed codestream for the software decoder by integrating bytes requested with previously obtained bytes (Larsson, [0021], 1.1-4, [0062], 1.1-13).
9. Regarding claim 8, Larsson further discloses the system defined in claim 3 wherein the client determines the location and length of each packet (Larsson,

[0062], 1.7-12).

10. Regarding claim 9, Larsson further discloses the system defined in claim 8 wherein the client requests a header length of a compressed file from the server that includes one or more file format boxes and a main header of the codestream box from which the client determines the location and length of each packet (Larsson, [0042], 1. 1-3, [0052], 1.1-5).
11. Regarding claims 10, and 11, claiming for two marker segments indicative of a map to every packet, the two marker segments comprise the TLM and PLM marker segments (Deshpande, [0007], 1.14-17).
12. Claims 19-20, claiming for method have limitations corresponding to the system claims 10-11. Therefore, claims 19-20 are rejected for the same reasons set forth in the rejection of claims 10-11.
13. Regarding claim 12 has limitation corresponding to claim 6. Therefore, claim 12 is rejected for the same reasons set forth in the rejection of claim 6.
14. Regarding claim 13, Larsson further discloses the system defined in claim 3 wherein the compressed codestream comprises a JPEG 2000 codestream (Larsson, [0059], 1.1-12).

15. Claims 14-18, claiming for method have limitations corresponding to system claims 5-9. Therefore, Claims 14-18 are rejected for the same reasons set forth in the rejection of claims 5-9.
16. Claim 21, claiming for method, has limitation corresponding to system claim 13. Therefore, Claim 21 is rejected for the same reasons set forth in the rejection of claims 13.
17. Claims 22-28, claiming for a article of manufacture, have limitations corresponding to system claims 10-14, and 16-18. Therefore, claims 22-28 are rejected for the same reasons set forth in the rejection of claims 10-14, and 16-18.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kelvin Lin whose telephone number is 571-272-3898. The examiner can normally be reached on Flexible 4/9/5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on 571-272-3868. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2142

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KYL
1/3/07

A handwritten signature in black ink, appearing to read "Andrew Caldwell". The signature is fluid and cursive, with a large, stylized "C" at the end.

**ANDREW CALDWELL
SUPERVISORY PATENT EXAMINER**